

ABSTRACT OF THE DISCLOSURE

A switch for an optical transmission network using wavelength division multiplexing has  $p_1$  input ports receiving  $p_1$  wavelengths and first switching means for switching the  $p_1$  wavelengths to  $p_2$  output ports,  $q_1$  input ports receiving  $q_1$  bands of wavelengths and second switching means for switching the  $q_1$  bands to  $q_2$  output ports,  $r_1$  input ports receiving  $r_1$  groups of bands and third switching means for switching the  $r_1$  groups of bands to  $r_2$  output ports. The three switching means consist of a single switching matrix adapted to couple any of the  $p_1+q_1+r_1$  input ports to any of the  $p_2+q_2+r_2$  output ports. This single-matrix architecture can switch all the granularities at the same time, which facilitates reconfiguration as a function of evolution of the traffic to be switched.